In the claims:

For the Examiner's convenience, all pending claims are presented below with changes shown.

1.      (Amended)  A device, comprising:

a scheduler in an access point to provide a schedule of variable length packets based on transmission times to send on spatial channels to mobile stations by filling M spatial channels for traffic on M stations at a time instant,

where M is a constant less than or equal to a number of antennas at the access point.

2.      (Original)  The device of claim 1 further including adaptive antenna arrays used in conjunction with a beam forming algorithm to achieve spatial diversity and implement Spatial-Division Multiple-Access (SDMA), wherein the adaptive antenna array changes beam weights based on the schedule.

3.      (Original)  The device of claim 1 wherein the scheduler in the downlink provides the schedule of transmission intervals for different mobile stations.

4.      (Original)  The device of claim 1 wherein the schedule accounts for traffic information to the mobile stations based on packet size.

5.      (Original)  The device of claim 1 wherein the schedule accounts for traffic information to the mobile stations based on queue size.

6.      (Original)  The device of claim 1 wherein the schedule accounts for traffic information to the mobile stations based on priority.

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7.    (Original)  The device of claim 1 wherein the access point sends multiple schedules in a protected time interval to the mobile stations.

8.    (Original)  The device of claim 7 wherein a first schedule of the multiple schedules is sent to a first mobile station and a second schedule is sent to a second mobile station.

9.    (Original)  The device of claim 1 wherein the access point fills spatial channels using the data packets buffered for all the mobile stations.

10-25. (Canceled)

26.    (Amended)    A method for a Medium Access Control (MAC) protocol, comprising:
        scheduling variable length packets in an access point based on transmission times to send on spatial channels to mobile stations by filling M spatial channels for traffic on M stations at a time instant,
        where M is a constant less than or equal to a number of antennas at the access point

27.    (Original)  The method of claim 26, further including: retrieving antenna resources in the access point to form spatial channels developed on the fly for a waiting mobile station.

28-29. (Canceled)

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